

4. An endocardial chamber mapping system comprising:
- a) a catheter assembly having
 - i) an array of signal acquisition electrodes expandable from a substantially cylindrical shape to a substantially spherical shape, and
 - ii) an electrical connector plug with multiple connectors electrically coupled to each of the electrodes present in said array;
 - b) voltage acquisition apparatus in communication with the electrodes of said array, having an analog to digital converter for converting the voltages on said array to corresponding signals; and
 - c) a computer having
 - i) an electrical communication with the voltage acquisition apparatus to receive the voltage acquired by the signal acquisition electrodes,
 - ii) a processing unit capable of computing a three-dimensional volumetric electric field distribution based on the signals acquired at the signal acquisition electrodes, and
 - iii) a display for displaying the three-dimensional volumetric electric field distribution via an iso-potential map overlaid on a display of the heart geometry.
5. The system of claim 4, wherein the iso-potential map is displayed as a continuously filled color-scale map.

New Claims for Examination

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6. The system of claim 4 wherein the iso-potential map comprises a set of nested rings of equipotential formed by connection points of equi-potential on a representation of a two dimensional surface.
7. The system of claim 4 wherein the iso-potential map displayed on said heart geometry comprises a set of nested rings of equipotential formed by connection points of equi-potential on a representation of a three dimensional surface.

REMARKS

Pending Claims:

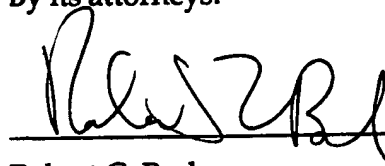
In this application, claims 1 through 5 are allowed. Kindly enter and examine newly presented claims 6 and 7.

CONCLUSION

The claims in this application should now be seen to be in condition for allowance. The prompt issuance of a notice to that effect is solicited.

Respectfully Submitted,
ENDOCARDIAL SOLUTIONS, INC.
By its attorneys:

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Robert C. Beck
Registration No. 28.184
Beck & Tysver, P.L.L.C.
2900 Thomas Avenue South
Suite 100
Minneapolis, MN 55416
Tel.: 612-915-9635
Fax: 612-915-9637